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Quarterly Report

Date of Report: July 15, 2007

Contract Number: DTPH56-05-T-0001
Prepared for: United States Department of Transportation
Pipeline and Hazardous Materials Safety Administration
Office of Pipeline Safety

Project Title: "Understanding Magnetic Flux Leakage (MFL) Signals from Mechanical Damage in Pipelines"

Prepared by: Dr. Lynann Clapham
Principal Investigator
Queen's University
Kingston, Ontario, Canada K7L 3N6
lynann@physics.queensu.ca

Mr. Ian Wood
Team Project Manager
Electricore, Inc.
27943 Smyth Drive, Suite 105
Valencia, CA 91355
ian@electricore.org

Mr. Scott Thetford
Team Technical Coordinator
Pipeline Research Council International, Inc.
1401 Wilson Blvd, Suite 1101
Arlington, VA 22209
sthetford@prci.org

For quarterly period ending: June 30, 2007

Milestone and Deliverable Accomplishments this Reporting Period

No milestone or deliverable accomplishments this period.

Technical Status

Technical work is nearly complete and the draft final report has been started.

Analysis completed of the preliminary MFL patterns from the gouged samples measured at the Gaz de France labs. Initial work involved background subtraction using an appropriate method. The magnetic modeling software MagNet is limited in its ability to mimic exact dent and gouge details, therefore true defect geometries are difficult to reproduce. Other options, including importing CAD drawings of the dents, or the laser profiles that were obtained at the Gaz de France facility, are being looked at for this project and future work. As yet, however, the software has been unable to do this. The comparison between measured results and results of geometry-only modeling is complete.

Business Status

The project team has been in communication with Enduro Pipeline Services regarding ongoing development work being conducted at Enduro and integrating some of the findings from project DTPH56-05-T-0001.

Additionally, the project is closely coordinated with the DOT PHMSA project DTPH56-06-T-000016 "Consolidated Program on In-Line Inspection Technologies" through PRCI. This coordination ensures that the results from this project are being continually communicated to companies such as Rosen, Battelle, and Blade.

Schedule

The project remains on schedule as per Modification #4 of the DOT Agreement.

Payable Milestones

There are no payable milestones completed during this reporting period.

Results and Conclusions

Results and conclusions are currently being incorporated into the Draft Final Report and will be delivered to the DOT in the next quarter for review and comment.

Issues, Problems or Challenges

There are no problems regarding the ongoing work, and all tasks are on schedule and on budget.

Plans for Future Activity

Planned activities over the next 90 days include:

- Complete incorporation of year 2 results into the database (Task 8).
- Finalize year 2 draft final report (Item 35).